

Claims

1. A method for regulating a tension (S_0 , S_1) of a web (01) passing through a processing machine, wherein interferences occurring during processing and affecting the tension (S_0 , S_1) are compensated by means of a regulating device (22) and the tension (S_0 , S_1) is maintained at a reference variable (S_{0-soll} , S_{1-soll}) or within a permissible range, characterized in that the reference variable (S_{0-soll} , S_{1-soll}) of the tension (S_0 , S_1), or the permissible range, are reduced, at least temporarily, in respect to an actually existing reference variable (S_{0-soll} , S_{1-soll}).
2. A method for regulating a tension (S_0 , S_1) of a web (01) passing through a processing machine, characterized in that an interference affecting the tension (S_0 , S_1) during the production is counteracted in that a reference variable (S_{0-soll} , S_{1-soll}) of the tension (S_0 , S_1) is changed.
3. The method in accordance with claim 1 or 2, characterized in that the reference variable (S_{0-soll} , S_{1-soll}) of the tension (S_0 , S_1), or the permissible range, are reduced to a fixed value (S_{0-fix}).
4. The method in accordance with claim 1 or 2, characterized in that the reference variable (S_{0-soll} , S_{1-soll}) of the tension (S_0 , S_1), or the permissible range, are reduced by a predetermined amount (ΔS_{-soll}) in respect to the actually existing reference variable (S_{0-soll} , S_{1-soll}).

5. The method in accordance with claim 1 or 2, characterized in that the change or reduction of the reference value (S_0 -soll, S_1 -soll) takes place in one step substantially without a chronological extension.

6. The method in accordance with claim 1 or 2, characterized in that the change or reduction of the reference value (S_0 -soll, S_1 -soll) takes place on the basis of a predetermined function, depending on the time.

7. The method in accordance with claim 6, characterized in that the change or reduction of the reference variable (S_0 -soll, S_1 -soll) takes place discontinuously in time intervals.

8. The method in accordance with claim 2, characterized in that during the production the tension (S_0 , S_1) is maintained at a reference variable (S_0 -soll, S_1 -soll), or within a permissible range.

9. The method in accordance with claim 1 or 2, characterized in that the change of the reference variable (S_0 -soll, S_1 -soll) takes place in the run-up to or during the interference.

10. The method in accordance with claim 1 or 2, characterized in that the change of the reference variable (S_0 -soll, S_1 -soll) takes place for the compensation of an interference caused by a roll change.

11. The method in accordance with claim 1 or 2, characterized in that the change of the reference variable (S_0 -soll, S_1 -soll) takes place for the compensation of an interference in the form of a connection (26) of a fresh with an old web (01).

12. The method in accordance with claim 4, characterized in that the change by the predetermined amount (ΔS -soll) takes place in such a way that it counteracts the expected change in the tension (S_0 , S_1).

13. The method in accordance with claim 1 or 2, characterized in that the reference variable (S_0 -soll, S_1 -soll) of the tension (S_0 , S_1) is altered upstream of a first printing unit (16) located in the transport direction (T) of the web (01).

14. The method in accordance with claim 13, characterized in that the change of the reference variable (S_0 -soll, S_1 -soll) is made at the draw-in unit (03).

15. The method in accordance with claim 13, characterized in that the change in the reference variable (S_0 -soll, S_1 -soll) takes place at the latest during a connection of an old web (01) with a fresh web (01).

16. The method in accordance with claim 13, characterized in that the change in the reference variable (S_0 -soll, S_1 -soll) takes place at the latest during the passage of the connection (26) through the last clamping point upstream of a first printing unit (16) located in the transport direction (T) of the web (01).

17. The method in accordance with claim 1 or 2, characterized in that following the change, or reduction of the reference variable (S_0 -soll, S_1 -soll), the latter is maintained constant at the new level for a predetermined time interval (Δt_1).

18. The method in accordance with claim 17, characterized in that after the time interval (Δt_1), the reference variable (S_0 -soll, S_1 -soll) is returned to its original constant value for stationary operation.

19. The method in accordance with claim 17, characterized in that after the time interval (Δt_1), the reference variable (S_0 -soll, S_1 -soll) is returned to a new constant value differing from the original reference variable (S_0 -soll, S_1 -soll) for stationary operation.

20. The method in accordance with claim 18 or 19, characterized in that the return of the reference variable (S_0 -soll, S_1 -soll) takes place by means of a predetermined function, depending on the time.

21. The method in accordance with claim 18 or 19, characterized in that the return of the reference variable (S_0 -soll, S_1 -soll) takes place using measured values of the tensions (S_0 -ist, S_1 -ist).

22. The method in accordance with claim 20 or 21, characterized in that the return of the reference variable (S_0 -

soll, S1-soll) takes place discontinuously in time intervals (Delta t_m).

23. The method in accordance with claim 20 or 21, characterized in that the return of the reference variable (S0-soll, S1-soll) takes place continuously by means of at least one sectionally defined chronological connection.

24. A method for regulating a tension (S0, S1) of a web (01) passing through a processing machine with a regulating device (22), by means of which during processing the tension (S0, S1) is maintained at a reference variable (S0-soll, S1-soll) or in a permissible range, characterized in that the reference variable (S0-soll, S1-soll) of the tension (S0, S1), or the permissible range, are temporarily changed in respect to an actually existing reference variable (S0-soll, S1-soll) in order to counteract an interference.

25. The method in accordance with claim 24, characterized in that the reference variable (S0-soll, S1-soll) of the tension (S0, S1), or the permissible range, are temporarily reduced to a fixed value (S0-fix).

26. The method in accordance with claim 24, characterized in that the reference variable (S0-soll, S1-soll) of the tension (S0, S1), or the permissible range, are temporarily reduced by a predetermined value (Delta S-soll) in respect to the actually existing reference variable (S0-soll, S1-soll).

27. The method in accordance with claim 25 or 26, characterized in that a memory unit (23) is provided, in which at least one value of the amount (Delta S-soll) of the change of the reference variable (S0-soll, S1-soll), or the fixed value (S0-fix), is stored.

28. The method in accordance with claim 26, characterized in that a memory or computing unit (23) is provided, in which at least one correlation for determining a value (Delta S-soll) of the change of the reference variable (S0-soll, S1-soll) is stored.